

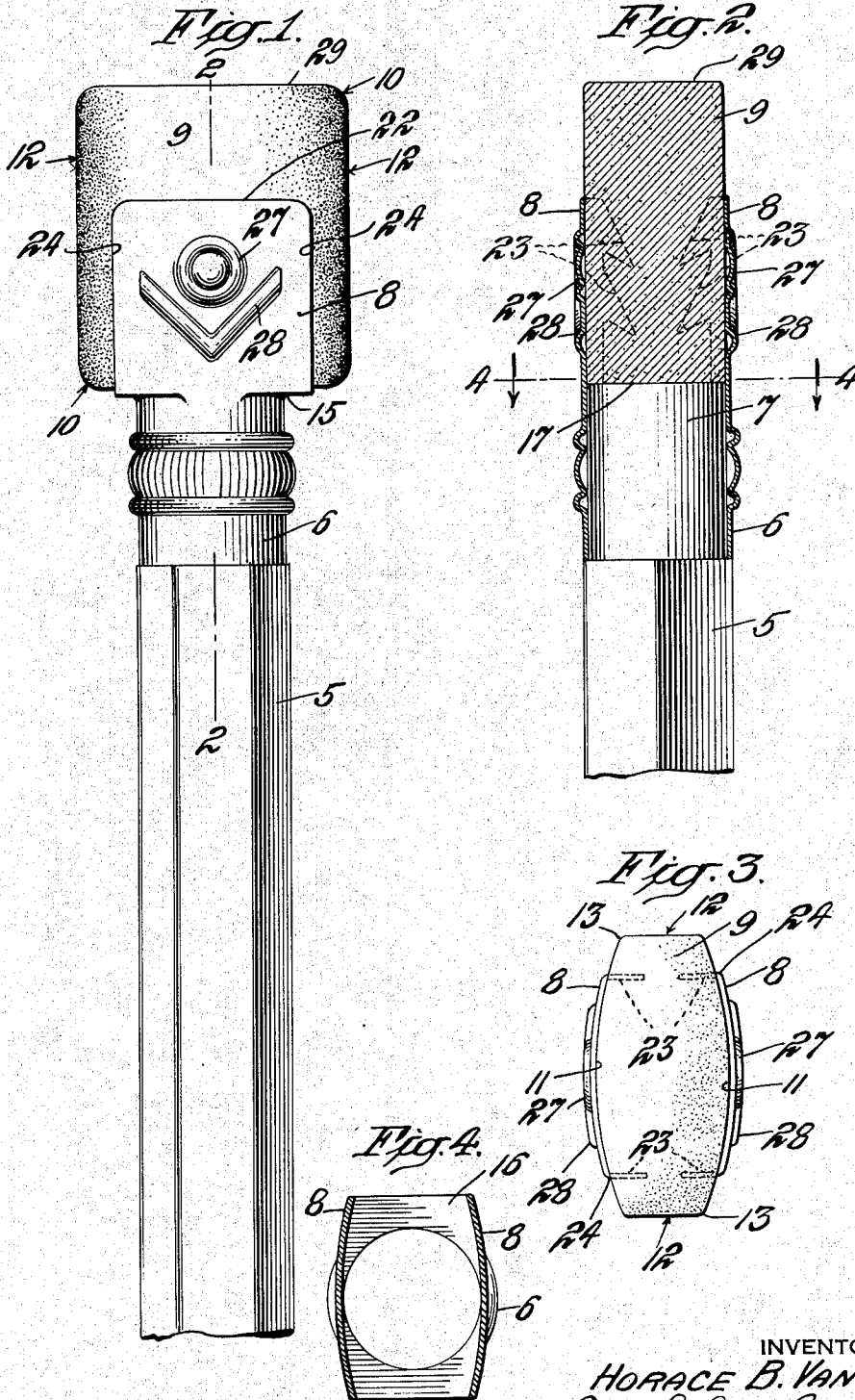
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H. B. VAN DORN

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ERASER FOR PENCIL AND HOLDING TIP THEREFOR

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INVENTOR
HORACE B. VAN DORN
BY *English and Studwell*
ATTORNEYS

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ERASER FOR PENCIL AND HOLDING TIP THEREFOR

Horace B. Van Dorn, Maplewood, N. J., assignor
to Joseph Dixon Crucible Company, Jersey
City, N. J., a corporation of New Jersey

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5 Claims. (Cl. 120—38)

The invention relates to an improvement in erasers for attachment to pencils and to an improved holding means for securing the eraser on the end of the sheath or ferrule attached to one end of the so-called "lead" pencil or on the end of a cylindrical cap which may be interchangeably positioned on either end of the pencil.

In the usual form of lead pencil in which the "lead" or marking material is commonly enclosed in a wooden sheath or shaft, which may be either round or hexagonal, the eraser element has taken many forms, cylindrical, wedge-shaped, flat-rectangular, and other forms. The most usual form of eraser element in commercial use is a cylindrical piece of rubber, of substantially the same diameter as the pencil, enclosed at its inner end in a metal ferrule which is fastened on one end of the pencil. This construction sometimes proves unsatisfactory because the eraser is worn down to the end of the ferrule before the pencil is used up, and there being no provision for extruding the eraser, the user of the pencil is put to the inconvenience and annoyance of seeking eraser means unconnected with the pencil. Accordingly, it has been proposed heretofore to provide lead pencils with an enlarged eraser element, either cylindrical or of other shape. Even when a cylindrical eraser larger in diameter than the pencil is provided, it often happens that the eraser is worn down to the end of the ferrule before the pencil is used up. Hence there has been a demand for pencils provided with erasers of sufficiently large erasing surfaces to last throughout the life of the pencil, even when such pencils are used by school children.

One objection to some of these former constructions providing pencils with enlarged eraser elements is the difficulty of manufacture, and sometimes the difficulty of holding the eraser element firmly in position on the end of the pencil. In the effort to provide an eraser element of sufficient size to last throughout the life of the pencil, even though very frequently used, it has been proposed to make the eraser element of flat rectangular form, and to secure such eraser on the end of the pencil by means of clamping jaws, but this type of eraser and holding device as heretofore manufactured have proved unsatisfactory because the eraser could not be secured firmly in position, so that after a comparatively short period of use it became detached from the pencil.

One object of the present invention is to provide an eraser element for pencils of such construction that it projects laterally beyond the

sides of the pencil and outwardly beyond the holding device or ferrule so as to provide erasing surfaces of ample size to last throughout the life of the pencil, even when the eraser is put to unusual use, as by school children. A further object of the invention is to provide holding means for such an eraser as will secure it on the end of the pencil so firmly that it cannot be accidentally detached therefrom. To these ends the invention consists in the improved eraser attachment for pencils and holding means therefor hereinafter fully described and particularly pointed out in the appended claims.

In the accompanying drawing illustrating the preferred form of the invention, Fig. 1 is a front elevation of a wooden sheath lead pencil having at one end a rectangular-shaped eraser, convex on its lateral sides, permanently secured by means of an improved ferrule to the end of the pencil; Fig. 2 is a side elevation of the pencil shown in Fig. 1, but with the eraser element and ferrule shown in transverse longitudinal section taken on the line 2—2 of Fig. 1; Fig. 3 is a top plan of the pencil and eraser shown in Fig. 1; and Fig. 4 is a transverse section taken on the line 4—4 of Fig. 2.

The pencil to which the improved eraser element and holding device therefor is adapted to be attached may be of any usual or preferred form, such as the usual wooden-sheath pencil of hexagonal or round form. The invention is also adapted for application to paper-sheath pencils, and to the cylindrical metal protective caps adapted to be placed on either end of a pencil. In the drawing is illustrated a wooden-sheath pencil of hexagonal form 5. On the outer end of the pencil body 5 is securely mounted a ferrule the inner cylindrical end 6 of which is fastened to the reduced cylindrical outer end 7 of the pencil. This inner cylindrical end 6 of the ferrule may be of conventional design. The outer end of the ferrule is formed as two parallelly-arranged shovel-shaped arms or jaws 8, with a strait-edged top 22 and side edges 24, adapted to hold firmly between them the eraser element 9, which in front elevation is rectangular in shape with rounded corners 10. In cross section, as shown in top plan in Fig. 3 the lateral sides 11 of the eraser are convex and lie substantially in the longitudinal planes of the sides of the cylindrical part 6 of the ferrule. The lateral edges 12 of the eraser are flat with slightly rounded corners 13.

The cylindrical portion 6 of the ferrule terminates at the point 15 in two laterally or trans-

versely extending flat sections 16 (Fig. 4) which constitute bearing surfaces or seats for the eraser. From the point 15 the ferrule extends outwardly as the shovel-shaped arms or jaws 8. The inner end of the eraser is seated against the flat transverse section or seats 16 of the ferrule and against the outer end 17 of the pencil, as shown in Fig. 2. By means of this construction the inner end of the eraser is given a firm base or foundation.

The means for securely fastening the eraser 9 in position on the end of the pencil with its lower or inner edge resting on the end of the pencil and on the ledges 16 of the transverse section 15 at the outer end of the cylindrical part 6 of the ferrule consists in the large teeth 23 projecting inwardly and downwardly into the lateral convex sides of the eraser 9 from each edge 24 of the jaws 8. By this means the eraser element is securely fastened in position on the end of the pencil and cannot be dislodged therefrom by any usual erasing operation to which it may be subjected. To strengthen the jaws 8, and also to impart a more attractive appearance thereto, they are provided on each side with a circular boss 27 and with a raised chevron 28.

The portions of the eraser element 9 extending beyond the arms 8 of the ferrule are of such thickness, width and length, as to provide ample erasing material to last throughout the life of the pencil, even when the pencil is used by school children for which the new pencil is particularly adapted, inasmuch as it affords them the long-wearing erasing surfaces provided not only by the lateral edges 12 but also by the top end 29 of the eraser. An additional feature of convenience and importance is the fact that the lateral sides of the eraser are convex and terminate in the relatively narrow lateral edges 12, enabling the user of the pencil to erase unwanted marks in a relatively narrow space which sometimes cannot be conveniently reached by cylindrical erasers.

I claim:—

1. An eraser attachment for pencils comprising a ferrule having a cylindrical inner end adapted to be secured to one end of a pencil, two parallel arms the outer side surfaces of which are substantially in the longitudinal planes of the outer sides of the ferrule and pencil, and lateral transverse sections extending from the cylindrical part of the ferrule at the inner end of the arms, said transverse sections constituting eraser-supporting seats, adapted to receive a substantially rectangular-shaped eraser the inner end of which is adapted to rest on the seats of the transverse sections of the ferrule, said arm portions of the ferrule having two parallel-arranged lateral edges each of which is provided with at least one inwardly projecting tooth adapted to extend into and firmly engage the eraser.

2. An eraser attachment for pencils comprising a ferrule having a cylindrical inner end adapted to be secured to one end of a pencil, two parallel arms the outer side surfaces of which are substantially in the longitudinal planes of the outer sides of the cylindrical ferrule, and two lateral transverse sections extending out-

wardly from the cylindrical part of the ferrule at the base of the arms, said transverse sections constituting eraser-supporting seats adapted to receive a substantially rectangular shaped eraser relatively thin in comparison with its length and width the inner end of which is adapted to rest on the seats of the transverse sections of the ferrule, said arm portions of the ferrule having two parallel-arranged lateral edges each of which is provided with at least one inwardly projecting tooth adapted to extend into and firmly engage the eraser to prevent the latter from movement with respect to the pencil.

3. An eraser attachment for pencils comprising a ferrule having a cylindrical inner portion adapted to be secured to one end of a pencil, two parallel arms projecting from said cylindrical portion, and lateral transverse sections extending from the cylindrical part of the ferrule at the inner end of the arms, said transverse sections constituting eraser-supporting seats adapted to receive an eraser positioned between said arms with the eraser having an inner edge engaged with the seats of the transverse sections, the other edges of the eraser extending outwardly of the opposite side and end edges of the arms, and means at the opposite side edges of the arms adapted to extend into the body of the eraser to anchor the same against movement on the transverse seats.

4. An eraser attachment for pencils comprising a ferrule having a cylindrical inner portion adapted to be secured to one end of a pencil, two parallel arms projecting from said cylindrical portion, and lateral transverse sections extending from the cylindrical part of the ferrule at the inner end of the arms, said transverse sections constituting eraser-supporting seats adapted to receive an eraser positioned between said arms with the eraser having an inner edge engaged with the seats of the transverse sections, the other edges of the eraser extending outwardly of the opposite side and end edges of the arms, and means at the opposite side edges of the arms adapted to be engaged with the eraser and acting to hold the eraser firmly on its seat and to retain the eraser against movement away from the seats.

5. An eraser attachment for pencils comprising a ferrule having a cylindrical inner portion adapted to be secured to one end of a pencil, two parallel arms projecting from said cylindrical portion, and lateral transverse sections extending from the cylindrical part of the ferrule at the inner end of the arms, said transverse sections constituting eraser-supporting seats adapted to receive an eraser positioned between said arms with the eraser having an inner edge engaged with the seats of the transverse sections, the other edges of the eraser extending outwardly of the opposite side and end edges of the arms, and at least one relatively large tooth on each side edge of the arms with said teeth on the opposed arms directed towards each other and towards the ferrule adapted when engaged with the eraser to hold the same on said seats and more firmly anchor the eraser in position.

HORACE B. VAN DORN.